bus prominulis, ad apices subconcentrico-undulatis; epidermide nigricante, eradiata; dentibus cardinalibus parvis, erectis, subcompressis crenulatisque; margarita purpurea et iridescente.

Hab.—Flint River, Ga., J. C. Plant and Dr. Neisler; Darien, J. H. Couper.

UNIO PLANIOR.—Testa subsulcata, subtriangulari, ad latere planulata, inæquilaterali; valvulis crassiusculis, antice crassioribus; natibus subprominentibus; epidermide vel lutea vel ochracea, radiata; dentibus cardinalibus parvis, compressis striatisque; lateralibus longis, crassiusculis et obliquis; margarita alba et iridescente.

Hab .- Tennessee, Mr. H. Moores; Headwaters Holston River, Washington

Co., Virgiuia, Prof. Cope.

UNIO VALLATUS.—Testa nodulosa, rotundata, lenticulari, subinflata, inæquilaterali; valvulis, crassis, antice crassioribus; natibus subprominentibus; epidermide luteo-fusca, eradiata; dentibus cardinalibus pergrandibus, elevatis granulatisque; lateralibus crassis, curtis obliquisque; margarita argentea et iridescente.

Hab .- Alabama River, Dr. Showalter.

Unio refulgens.—Testa nodulosa, rotundata, lenticulari, inæquilaterali; valvulis subcrassis, antice crassioribus; natibus prominulis; epidermide rufo-custanea, aliquanto polita: dentibus cardinalibus subgrandibus, eleganter corrugatis crenulatisque; lateralibus longiusculis, obliquis, minute corrugatis; margarita albida, ad marginem purpurescente et elegantissime iridescente.

Hab.—Oktibbeha River, Lauderdale Co., Miss., W. Spillman, M. D.

UNIO UHARÉENSIS.—Testa lævi, oblonga, ad latere planulata, inæquilaterali, postice biangulata, antice rotundata; valvulis crassiusculis, antice crassioribus; natibus prominulis; epidermide rufo-fusca, subsquamea, eradiata; dentibus cardinalibus parvis, striatis, in utroque valvulo duplicibus; lateralibus longis, lamellatis subcurvisque; margarita vel alba vel salmonis colore tincta.

Hab.—Uharee River, Montgomery Co., N. C., F. A. Genth, M. D.

UNIO SPHERICUS.—Testa nodulosa, valde inflata, subglobosa, fere æquilaterali; valvulis crassis, antice crassioribus; natibus elevatis; epidermide rufo-castanea, eradiata; dentibus cardinalibus pergrandibus, corrugatis crenulatisque; lateralibus curtis, crassis, corrugatis, obliquis subcurvisque; margarita argentea et valde iridescente.

Hab. -- Pearl River, at Jackson, Miss., C. M. Wheatley.

## Notes on some singular forms of Chinese species of UNIO.

## BY ISAAC LEA.

In a paper on "Chinese Shells," by Dr. Baird and Mr. H. Adams, published in the Proceedings of the Zoological Society of London, May 9, 1867, there

are some remarks and claims which call upon me for correction.

1st, "Unio Douglasiæ." It is stated that "in 1833 Dr. Gray shortly described and accurately figured in the 12th volume of Griffith's edition of Cuvier a species of Unio, which he called U. Douglasiæ," &c. Further, that "M. Lea, some years afterwards, from not knowing the shell as figured in Griffith, described and figured a species from China, which he named U. Murchisonianus, but which there is no doubt is the same as U. Douglasiæ of Gray." In the above statements there are several to which I beg leave to demur. It is suggested by these gentlemen that "perhaps from not knowing the shell (Douglasiæ) as figured in Griffith," I had "described and figured Murchisonianus, which there is no doubt is the Douglasiæ of Gray." In answer to this I 1868.]

would ask how I could, when I read my paper on the 16th March, 1832, before the American Philosophical Society, know of a description in Griffith's Cuvier dated 1834? (not in 1833, as incorrectly cited). Douglasia therefore cannot have precedence "of some years," as claimed for it, but it must remain a synonym to Murchisonianus, where I placed it in my Synopsis, first, second, and third editions, since 1836.

As regards the claim in the same paragraph for U. Shanghaiensis, Lea, being also a synonym to Douglasia, I am constrained to differ in opinion. Shanghuiensis is not the same with Douglasie, as affirmed, but it is the same with U. Osbeckii, Philippi, the description of which I had not seen. "Conchylien, vol. 3d." Some years since I placed it as a synonym to Osbeckii in the manuscript copy of my Synopsis, 4th ed., preparing for the press.

2d. Anodonta tenuis, Gray,—also called Unio tenuis, Gray, in Griffith's Cuvier,—is considered to be, by Messrs. Baird and Adams, an Anodonta, and it is said to be little known. This shell does not belong to either of these genera. It is a true Dipsus of Leach, and if Dr. Gray had had a perfect specimen before himself the description of the description of the second description. cimen before him when describing Anodonta tenuis, he never would have placed it in that genus. The Dipsusiun character was evidently obliterated by age in the specimen from which he made his diagnosis. The young specimens, and the mature perfect ones, always have the tooth (so to call it) of the genus Dipsas. I described this species in the Transactions of the American Philosophical Society, March 15, 1833, under the name of Symphunota discoidea, with a figure perfectly representing the characteristic tooth, which consists of a single raised, slightly curved line under the dorsal margin. In my "Synopsis," in the first edition in 1836, as well as in the second and third editions, I gave Dr. Gray's tenuis as a synonym to this shell, which I there placed in the genus Dipsas, where it properly belongs. It must therefore stand as Dipsos discoidea, Lea, with the synonym of Anodonta tenuis, Gray; my date being 1833, and Dr. Gray's 1834.

In this paper of Messrs. Baird and Adams, they have described a supposed new species from Shanghai, under the name of Unio (Lampsilis) subtortus. I previously published a description of a species which I believe will prove the same, under the name of tortuosus, in the Proc. Acad. Nat. Sci. April 18, 1865. Since then I have found in the "Journal de Conchiliologie," July, 1863,- which work for that year was not accessible to me,-that Messrs. Crosse and Debeaux had given a description and an excellent figure of a Unio of the same twisted character, under the name of Tientsinensis, which, if the figure be entirely correct, differs in the form of the posterior slope, and in the undulations

of that part.

I may be permitted to express my surprise that neither the French nor the Euglish authors should have observed the very remarkable character of these Chinese species, which were before them, in being inequivalve! The figure in the Journal de Conchyliologie seems to be very correctly delineated by the artist, having represented the inequivalve condition of the right and left valves.

Messrs. Baird and Adams refer to Tientsinensis, but consider it to differ in some respects from their subtortus, which I think very likely. If Tientsinensis prove to be the same as tortuosus and contortus, then the two last must be synonyms. If not, then there will be two species, viz.: Tientsinensis, Grosse and Debeaux, and tortuosus (nobis),—contortus, B. and A., being a synonym to tortuosus.

May 5th.

Mr. Vaux, Vice-President, in the Chair.

Twenty-nine members present. The following paper was presented for publication: "List of [May,